REMARKS/ARGUMENTS

Applicant responds herein to the Office Action dated June 20, 2006.

Insofar as paragraph 2 of the Office Action is concerned, the applicant is content to maintain the documents submitted in the record of this file, to make it accessible to the public at large.

Responsive to the objections to the drawings, the applicant is resubmitting the formal drawings, including certain drawing which are in color. A Petition for Acceptance of Color Photographs in Lieu of Drawings Pursuant to Rules under 37 C.F.R. §1.84(b)(2) is submitted herewith, along with the petition fee required therefor.

The specification has been amended to include a paragraph which references the drawings executed in color.

Further responsive to the Office Action, "reflection hat" has been corrected. This is also responsive to the claim objections in paragraphs 6-8 of the Office Action.

Further responsive to the rejection of certain of the claims under 35 U.S.C. §112, the applicant has attended to clarification of the limitations "the profile Ra" and "the profile Ry".

Claim 2 has been amended to indicate that reference is being made to 100-200 mesh. Please note that the symbol "#" in the specification represents "mesh size" and further noted the symbol "#" is widely used for mesh size in Korea and in other countries. In fact, the symbol "#" is self-explanatory, in that it graphically indicates a mesh size.

In connection with the amendment concerning the terms "Ra" and "Ry", please note that support for the amendment can be found at page 12, lines 1-19 in the specification. The basis of the amendment is provided in an enclosed Attachment which is captioned "**Surface Roughness**". That document is submitted herewith.

Also note that the applicant has now opted to use the expression "arithmatical average roughness" for the parameter Ra. However, if the Examiner deems that there is a more common term to describe the parameter being referred to, the applicant would be glad to accept the Examiner's suggestion.

The applicant notes with appreciation the indication that claims 1-3, 5, 6 and 8-17 are directed to patentable subject matter. Having addressed the specific issues under 35 U.S.C. §112, as noted above, formal allowance of these claims is solicited.

Accordingly, the Examiner is respectfully requested to reconsider the application, allow the claims as amended and pass this case to issue.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 20, 2006

MAX MOSKOWITZ
Name of applicant, assignee or Registered Representative

Signature

September 20, 2006
Date of Signature

Respectfully submitted,

MAX MOSKOWITZ
Registration No.: 30,576
OSTROLENK, FABER, GERB & SOFFEN, LLP
1180 Avenue of the Americas
New York, New York 10036-8403
Telephone: (212) 382-0700

〔Technical Data〕

Surface Roughness

Excerpt from JIS B 0601 (1994)
and JIS B 0031 (1994)

〔Tecl
Dra

1. Varieties of Surface Roughness Indicators

Definitions and presentations of arithmetic average roughness (Ra), maximum height (Ry), 10-spot average roughness (Rz), average concave-to-convex distance (Sm), average distance between local peaks (S) and load length rate (tp) are given as parameters indicating the surface roughness of an industrial product. Surface roughness is the arithmetic average of values at randomly extracted spots on the surface of an object.

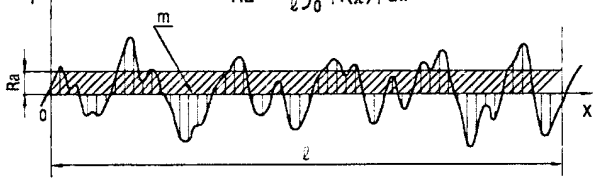
〔Center-line average roughness (Ra 75) is defined in the supplements to JIS B 0031 and JIS B 0601.〕

Typical Calculations of Surface Roughness

Arithmetical Average Roughness, Ra

A portion stretching over a reference length in the direction in which the average line extends is cut out from the roughness curve. This portion is presented in a new graph with the X axis extending in the same direction as the average line and the Y axis representing the magnitude. Ra is represented by the equation shown at right, in microns (μm).

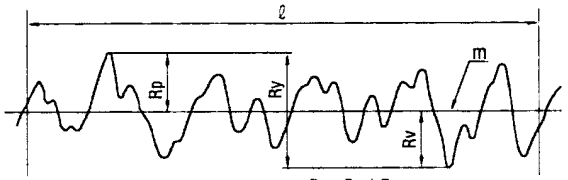
$$Ra = \frac{1}{\ell}\int_0^{\ell} |f(x)|\,dx$$



Maximum Height, Ry

A portion stretching over a reference length in the direction in which the average line extends is cut out from the roughness curve. The gap between the peak line and the trough line is measured in the direction in which the magnitude axis extends, in microns (μm).

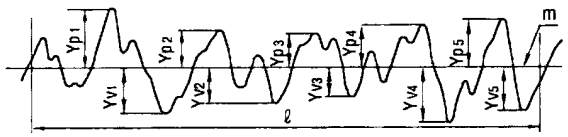
Remark : A portion without an abnormally high peak or abnormally low trough, which may be regarded as a flaw, is cut out over the reference length.



$$Ry = Rp + Rv$$

Ten-Spot Average Roughness, Rz

A portion stretching over a reference length in the direction in which the average line extends is cut out from the roughness curve. The average of the levels (Yp) of the highest peak to the fifth highest peak as measured from the average line and the average of the levels (Yv) of the lowest trough to the fifth lowest trough similarly measured in the said portion are added together. Rz is this sum, in microns (μm).



$$Rz = \frac{|Yp_1 + Yp_2 + Yp_3 + Yp_4 + Yp_5| + |Yv_1 + Yv_2 + Yv_3 + Yv_4 + Yv_5|}{5}$$

$Yp_1, Yp_2, Yp_3, Yp_4, Yp_5$: Levels of the highest peak to the fifth highest peak in the said portion with the length ℓ.

$Yv_1, Yv_2, Yv_3, Yv_4, Yv_5$: Levels of the lowest trough to the fifth highest trough in the said portion with the length ℓ.

Reference : Relation between Arithmetic Average Roughness (Ra) and Conventional Parameters

Arithmetic Average Roughness Ra			Max. Height Ry	Ten-Spot Average Roughness Rz	Reference Ry/Rz Length	Conventional Finish Symbol
Standard Series	Cut-Off Value λc (mm)	Graphical Representation of Surface Texture	Standard Series		ℓ (mm)	
0.012 a	0.08	0.012 ~ 0.2	0.05 s	0.05 z	0.08	
0.025 a	0.25		0.1 s	0.1 z		
0.05 a			0.2 s	0.2 z	0.25	
0.1 a			0.4 s	0.4 z		
0.2 a			0.8 s	0.8 z		
0.4 a	0.8	0.4 ~ 1.6	1.6 s	1.6 z	0.8	
0.8 a			3.2 s	3.2 z		
1.6 a			6.3 s	6.3 z		
3.2 a	2.5	3.2 ~ 6.3	12.5 s	12.5 z	2.5	
6.3 a			25 s	25 z		
12.5 a	8	12.5 ~ 25	50 s	50 z		
25 a			100 s	100 z	8	
50 a	—	50 ~ 100	200 s	200 z		
100 a			400 s	400 z	—	

* Interrelations among the three varieties shown here are not precise, and are presented for convenience only.
* Ra : The evaluated values of Ry and Rz are the cut-off values and the reference length each multiplied by five, respectively.

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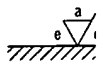
Fig. 1.



Remark :

Symbol	
=	The is p the
⊥	The per the
X	The diag the
M	The in va
C	The is v the
R	The is v plan